



U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

# Monthly Wholesale Trade

Sales and Inventories

May 1999

BW/99-5

Issued July 1999

## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES MAY 1999

**Intention to Revise Wholesale Estimates:** Monthly wholesale data will be revised based on the results of the 1997 Annual Trade Survey, which reflects the preliminary 1997 Census of Wholesale Trade data. Unadjusted sales, inventories, and inventories/sales ratios will be revised for January 1993 through May 1999, while corresponding adjusted data will be revised for January 1990 through May 1999. Revised data are scheduled for release the week of August 2.

**Sales.** May 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$225.5 billion, up 1.5 percent (+/- 0.7%) from the revised April level and were 6.0 percent (+/- 1.2%) above the May 1998 level. The April preliminary estimate was revised upward \$0.4 billion or 0.2 percent. May sales of durable goods increased 1.2 percent from last month (+/-1.1%) and were 5.9 percent (+/-1.7%) above last year. Compared to last month, sales of professional and commercial equipment and supplies increased 2.6 percent and lumber and other construction materials grew 2.4 percent. May sales of nondurable goods increased 1.7 percent (+/-0.8%) from April and were up 6.2 percent (+/-1.0%) from last year. Sales of farm-product raw materials increased 5.6 percent from last month and apparel, piece goods, and notions were up 4.2 percent.

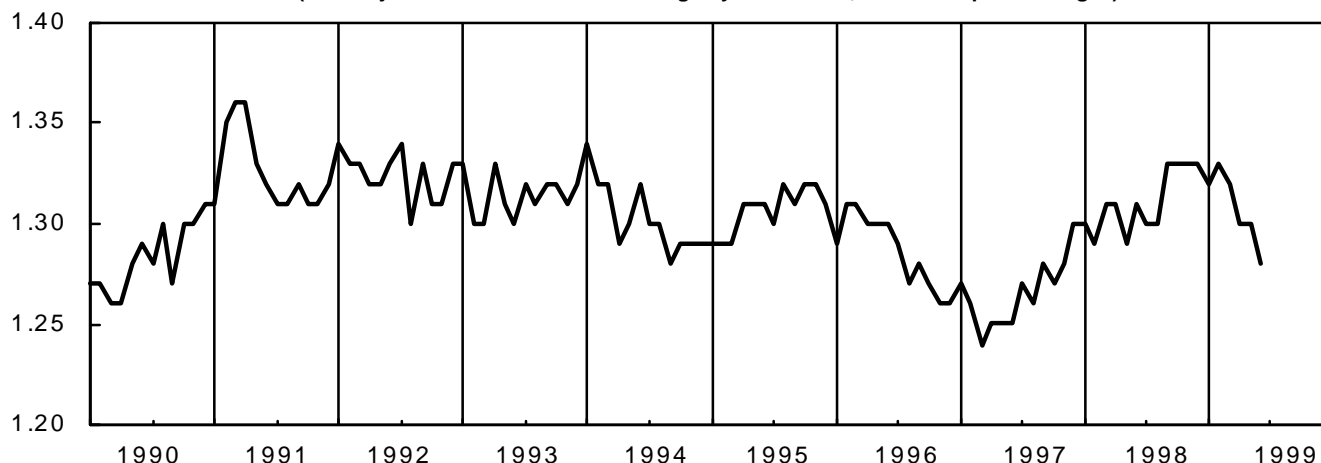
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were

\$289.6 billion at the end of May, up 0.3 percent (+/- 0.4%) from the revised April level and were 4.3 percent (+/- 1.0%) above May 1998. The April preliminary estimate was revised downward \$0.1 billion. Among durable goods, inventories of electrical goods increased 1.9 percent from last month. Among nondurable goods, inventories of beer, wine, and distilled alcoholic beverages increased 4.6 percent from April and drugs, drug proprietaries, and druggists' sundries increased 3.3 percent.

**Inventories/Sales Ratio.** The May inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.28. The May 1998 ratio was 1.31.

*Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/97-RV Current Business Reports.*

**Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999**  
(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for June is scheduled to be released August 9, 1999 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Ronald Pienzykoski, 301-457-2779 or 301-457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the Internet - <http://www.census.gov/svsd/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

SIC <sup>1</sup> code	Kind of Business	Sales						Inventories						Inventories/sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		May 1999 (p)	Apr. 1999 (r)	May 1998 (r)	May/ Apr.	Apr./ Mar.	May 99 May 98	May 1999 (p)	Apr. 1999 (r)	May 1998 (r)	May/ Apr.	Apr./ Mar.	May 99 May 98	May 1999 (p)	Apr. 1999 (r)	May 1998 (r)
Adjusted <sup>2</sup>																
	U.S. Total	225,500	222,267	212,644	1.5	0.2	6.0	289,644	288,882	277,746	0.3	0.2	4.3	1.28	1.30	1.31
50	Durable	119,492	118,066	112,806	1.2	-0.1	5.9	189,049	188,204	182,824	0.4	-0.4	3.4	1.58	1.59	1.62
501	Automotive	20,882	20,840	18,875	0.2	3.2	10.6	30,124	29,805	28,514	11	0.0	5.6	1.44	1.43	1.51
502	Furniture	3,490	3,452	3,389	1.1	-0.5	3.0	5,551	5,557	5,559	-0.1	-1.0	-0.1	1.59	1.61	1.64
503	Lumber	8,632	8,430	7,428	2.4	0.9	16.2	8,076	7,919	7,749	2.0	1.7	4.2	0.94	0.94	1.04
504	Prof. equip.	22,170	21,608	20,858	2.6	-2.7	6.3	23,626	23,569	26,837	0.2	-2.9	-12.0	1.07	1.09	1.29
505	Metals	8,207	8,293	8,828	-1.0	-0.4	-7.0	13,849	13,811	14,259	0.3	0.3	-2.9	1.69	1.67	1.62
506	Electrical	18,447	18,379	17,288	0.4	0.6	6.7	27,895	27,379	26,686	1.9	-1.1	4.5	1.51	1.49	1.54
507	Hardware	7,176	7,051	6,680	1.8	-1.4	7.4	13,439	13,481	13,259	-0.3	-0.5	1.4	1.87	1.91	1.98
508	Machinery	18,508	18,438	18,716	0.4	-1.1	-1.1	49,041	49,337	43,891	-0.6	0.8	11.7	2.65	2.68	2.35
509	Other Durable	11,980	11,575	10,744	3.5	0.1	11.5	17,448	17,346	16,070	0.6	-0.8	8.6	1.46	1.50	1.50
51	Nondurable	106,008	104,201	99,838	1.7	0.6	6.2	100,595	100,678	94,922	-0.1	1.1	6.0	0.95	0.97	0.95
511	Paper	8,252	7,971	7,563	3.5	2.2	9.1	9,548	9,487	9,118	0.6	2.1	4.7	1.16	1.19	1.21
512	Drugs	13,061	12,800	10,738	2.0	2.5	21.6	17,629	17,062	15,010	3.3	4.8	17.4	1.35	1.33	1.40
513	Apparel	7,633	7,322	6,943	4.2	-6.6	9.9	11,344	11,462	12,108	-1.0	-2.4	-6.3	1.49	1.57	1.74
514	Groceries	29,943	29,566	28,422	1.3	1.2	5.4	17,107	17,128	16,490	-0.1	1.9	3.7	0.57	0.58	0.58
515	Farm-products	8,532	8,079	8,864	5.6	-4.8	-3.7	12,764	12,699	9,965	0.5	3.6	28.1	1.50	1.57	1.12
516	Chemicals	4,248	4,280	4,577	-0.7	-2.5	-7.2	4,971	5,041	5,064	-1.4	-0.7	-1.8	1.17	1.18	1.11
517	Petroleum	13,929	13,617	12,524	2.3	7.8	11.2	4,133	4,199	4,673	-1.6	-0.3	-11.6	0.30	0.31	0.37
518	Alcohol	5,081	5,121	4,784	-0.8	1.1	6.2	6,197	5,923	5,257	4.6	0.3	17.9	1.22	1.16	1.10
519	Other Nondur.	15,329	15,445	15,423	-0.8	-1.7	-0.6	16,902	17,677	17,237	-4.4	-1.7	-1.9	1.10	1.14	1.12
Not Adjusted														Sales to date		
														1999	1998	
	U.S. Total	224,014	225,055	210,362	-0.5	-5.5	6.5	287,824	290,954	276,348	-1.1	0.1	4.2	1,082,201	1,039,352	
50	Durable	116,968	118,902	110,142	-1.6	-7.0	6.2	190,898	189,826	184,470	0.6	0.3	3.5	570,941	547,667	
501	Automotive	20,924	21,819	18,950	-4.1	-3.9	10.4	30,305	30,163	28,714	0.5	-0.4	5.5	101,941	92,151	
502	Furniture	3,382	3,497	3,274	-3.3	-3.8	3.3	5,557	5,413	5,565	2.7	-1.8	-0.1	16,553	16,458	
503	Lumber	8,813	8,599	7,629	2.5	1.1	15.5	8,318	8,157	7,974	2.0	2.4	4.3	39,264	35,118	
504	Prof. equip.	20,840	21,068	19,523	-1.1	-13.0	6.7	23,579	23,805	26,756	-0.9	-2.1	-11.9	104,556	101,592	
505	Metals	8,076	8,534	8,704	-5.4	-7.1	-7.2	13,932	13,880	14,330	0.4	-0.4	-2.8	42,001	44,513	
506	Electrical	17,598	17,736	16,475	-0.8	-9.4	6.8	28,146	27,269	26,899	3.2	0.0	4.6	86,719	81,712	
507	Hardware	7,040	6,988	6,613	0.7	-1.2	6.5	13,762	13,764	13,577	0.0	0.5	1.4	33,173	31,205	
508	Machinery	18,878	19,526	18,810	-3.3	-5.9	0.4	49,973	50,324	44,681	-0.7	2.0	11.8	91,993	92,478	
509	Other Durable	11,417	11,135	10,164	2.5	-8.5	12.3	17,326	17,051	15,974	1.6	0.6	8.5	54,741	52,440	
51	Nondurable	107,046	106,153	100,220	0.8	-3.7	6.8	96,926	101,128	91,878	-4.2	-0.3	5.5	511,260	491,685	
511	Paper	7,674	7,939	7,102	-3.3	-4.5	8.1	9,386	9,563	8,963	-1.9	2.4	4.7	39,372	36,560	
512	Drugs	12,408	12,954	10,158	-4.2	-3.1	22.2	16,853	17,164	14,335	-1.8	4.5	17.6	62,101	53,211	
513	Apparel	6,343	7,066	5,749	-10.2	-20.3	10.3	11,038	11,038	11,769	0.0	-2.2	-6.2	35,865	34,716	
514	Groceries	30,871	29,123	28,877	6.0	-5.4	6.9	17,021	16,957	16,375	0.4	2.4	3.9	143,624	138,035	
515	Farm-products	8,259	7,659	8,474	7.8	-15.4	-2.5	10,671	12,610	8,351	-15.4	-6.0	27.8	41,646	46,237	
516	Chemicals	4,375	4,370	4,691	0.1	-6.4	-6.7	5,031	5,051	5,125	-0.4	-1.0	-1.8	21,538	23,102	
517	Petroleum	13,845	14,025	12,587	-1.3	7.6	10.0	4,129	4,161	4,673	-0.8	1.8	-11.6	63,040	60,523	
518	Alcohol	5,213	5,116	4,923	1.9	0.0	5.9	5,980	5,882	5,084	1.7	-0.5	17.6	23,352	21,664	
519	Other Nondur.	18,058	17,901	17,659	0.9	4.9	2.3	16,817	18,702	17,203	-10.1	-3.4	-2.2	80,722	77,637	

p Preliminary estimate. r Revised.

1 For a full description of the SIC codes shown above, see the "1987 Standard Industrial Classification Manual" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

**Table 2. Coefficients of Variation and Standard Error for Sales and Inventories**

SIC code	Kind of Business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative to previous year
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	Current year	Previous year	
		Median	Median	Median	Median	Median	Median	Median	Median			
	<b>U.S. Total</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>1.3</b>	<b>0.4</b>	<b>0.2</b>	<b>0.8</b>	<b>0.9</b>	<b>1.2</b>	<b>1.1</b>	<b>0.7</b>
<b>50</b>	<b>Durable</b>	<b>1.9</b>	<b>2.4</b>	<b>1.9</b>	<b>2.3</b>	<b>0.6</b>	<b>0.3</b>	<b>1.1</b>	<b>1.1</b>	<b>1.8</b>	<b>2.3</b>	<b>1.0</b>
501	Automotive	4.3	4.8	4.2	4.8	1.0	0.9	2.0	2.6	4.3	5.1	2.3
502	Furniture	6.5	7.7	6.4	7.7	2.0	0.9	2.9	2.6	6.1	6.6	1.5
503	Lumber	5.4	5.3	5.2	5.4	1.3	0.7	1.9	2.4	5.5	5.7	1.3
504	Prof. equip.	5.8	7.0	5.5	7.0	1.4	0.7	3.3	2.2	6.6	5.4	3.1
505	Metals	5.0	9.9	4.9	9.9	1.1	0.7	1.6	3.0	5.0	4.8	0.9
506	Electrical	5.6	6.7	5.8	6.6	1.4	0.6	2.2	2.4	5.6	6.3	2.2
507	Hardware	5.5	6.1	5.6	6.2	1.2	0.6	1.6	2.1	5.7	5.5	1.3
508	Machinery	6.4	6.5	6.3	6.5	1.9	0.6	2.6	2.0	6.1	6.8	2.0
509	Other Durable	6.4	8.9	6.4	8.5	1.7	0.9	2.2	2.3	6.4	6.0	1.9
<b>51</b>	<b>Nondurable</b>	<b>1.9</b>	<b>2.2</b>	<b>1.9</b>	<b>2.2</b>	<b>0.6</b>	<b>0.4</b>	<b>1.0</b>	<b>1.3</b>	<b>1.9</b>	<b>1.7</b>	<b>0.7</b>
511	Paper	5.0	5.1	4.9	5.1	1.1	0.6	2.1	2.0	5.0	5.0	1.1
512	Drugs	6.3	4.9	6.3	4.8	1.0	0.8	2.4	1.6	6.4	7.0	1.4
513	Apparel	4.8	7.6	5.0	7.5	2.1	1.1	2.9	2.5	4.5	4.7	1.7
514	Groceries	3.0	5.1	3.0	5.1	0.7	0.6	1.1	1.2	3.0	3.0	0.9
515	Farm-products	6.6	8.4	6.6	8.3	2.1	1.7	2.8	4.2	6.3	5.5	2.2
516	Chemicals	5.5	6.3	5.6	6.2	1.4	0.6	2.0	2.0	5.2	5.9	1.3
517	Petroleum	6.7	14.3	6.4	14.7	0.9	1.1	1.7	1.7	7.1	7.0	1.2
518	Alcohol	6.3	8.7	6.4	8.7	1.5	1.4	1.3	16.3	6.1	6.4	1.4
519	Other Nondur.	6.3	7.6	6.3	7.3	1.9	1.1	4.2	4.1	6.5	5.7	3.0

**Note:** The median measures of variability are based on the most recent 12 months of data.

### Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times$  (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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**Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers**

SIC code	Kind of Business	Sales						Inventories					
		1999					1998	1999					1998
		Jun.	May r	Apr. r	Mar.	Feb.	May r	Jun.	May r	Apr. r	Mar.	Feb.	May r
	<b>U.S. Total<sup>1</sup></b>	<b>1.038</b>	<b>0.994</b>	<b>1.010</b>	<b>1.077</b>	<b>0.911</b>	<b>0.987</b>	<b>0.984</b>	<b>0.994</b>	<b>1.006</b>	<b>1.009</b>	<b>1.015</b>	<b>0.994</b>
<b>50</b>	<b>Durable</b>	<b>1.054</b>	<b>0.978</b>	<b>1.006</b>	<b>1.082</b>	<b>0.904</b>	<b>0.976</b>	<b>1.000</b>	<b>1.010</b>	<b>1.009</b>	<b>1.003</b>	<b>1.003</b>	<b>1.010</b>
501	Automotive	1.060	1.002	1.047	1.125	0.921	1.004	0.984	1.006	1.012	1.016	1.042	1.007
502	Furniture	1.014	0.969	1.013	1.048	0.892	0.966	1.016	1.001	0.974	0.982	0.976	1.001
503	Lumber	1.119	1.021	1.020	1.018	0.842	1.027	1.031	1.030	1.030	1.023	0.999	1.029
504	Prof. equip.	1.056	0.940	0.975	1.090	0.907	0.936	0.988	0.998	1.010	1.002	0.991	0.997
505	Metals	1.053	0.984	1.029	1.104	0.947	0.986	1.001	1.006	1.005	1.012	1.005	1.005
506	Electrical	1.029	0.954	0.965	1.071	0.909	0.953	1.018	1.009	0.996	0.985	0.996	1.008
507	Hardware	1.113	0.981	0.991	0.989	0.867	0.990	1.010	1.024	1.021	1.011	1.002	1.024
508	Machinery	1.049	1.020	1.059	1.113	0.920	1.005	1.004	1.019	1.020	1.008	0.997	1.018
509	Other Durable	0.993	0.953	0.962	1.052	0.893	0.946	0.993	0.993	0.983	0.969	0.984	0.994
<b>51</b>	<b>Nondurable</b>	<b>1.019</b>	<b>1.009</b>	<b>1.017</b>	<b>1.068</b>	<b>0.922</b>	<b>0.999</b>	<b>0.956</b>	<b>0.965</b>	<b>1.009</b>	<b>1.018</b>	<b>1.034</b>	<b>0.965</b>
511	Paper	1.001	0.930	0.996	1.066	0.946	0.939	0.977	0.983	1.008	1.005	0.997	0.983
512	Drugs	0.992	0.950	1.012	1.071	0.931	0.946	0.967	0.956	1.006	1.009	1.016	0.955
513	Apparel	0.995	0.831	0.965	1.130	1.034	0.828	1.021	0.973	0.963	0.961	1.008	0.972
514	Groceries	1.026	1.031	0.985	1.054	0.910	1.016	0.990	0.995	0.990	0.985	0.980	0.993
515	Farm-products	0.936	0.968	0.948	1.067	0.955	0.956	0.778	0.836	0.993	1.094	1.201	0.838
516	Chemicals	1.078	1.030	1.021	1.063	0.934	1.025	1.003	1.012	1.002	1.005	1.007	1.012
517	Petroleum	0.984	0.994	1.030	1.032	0.938	1.005	0.952	0.999	0.991	0.970	0.984	1.000
518	Alcohol	1.107	1.026	0.999	1.010	0.811	1.029	1.012	0.965	0.993	1.001	0.956	0.967
519	Other Nondur.	1.086	1.178	1.159	1.086	0.889	1.145	0.958	0.995	1.058	1.077	1.072	0.998



r Revised

1 Adjusted sales and inventories data shown in Table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.